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**From:** Dan Pope [DPope@css-inc.com]  
**Sent:** 9/26/2018 8:02:31 PM  
**To:** Davis, Eva [Davis.Eva@epa.gov]; d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]  
**Subject:** RE: 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ  
**Attachments:** ATT00001.txt; drive-download-20180926T163841Z-001 - Copy.zipper

See if you can download this. Then rename it to ".zip".

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**From:** Davis, Eva [mailto:Davis.Eva@epa.gov]  
**Sent:** Wednesday, September 26, 2018 1:57 PM  
**To:** Wayne Miller; d'Almeida, Carolyn K.; Nicole Goers; Brasaemle, Karla; steve; Jennings, Eleanor; Bo; Dan Pope  
**Cc:** JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW; Smallbeck, Donald R.; Pearson, Stuart C.; Paula Panzino; William.Hughes@SpecProSvc.com  
**Subject:** RE: 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ

Wayne – EPA email system can't accept .zip files – can you find another way to send them? But the issue is not that we aren't aware of the fact that BTEX can be degraded by sulfate or nitrate, the issue is that the testing that was done shows that the bugs needed for anaerobic benzene degradation are not present at this site. Eva

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**From:** Wayne Miller [mailto:Miller.Wayne@azdeq.gov]  
**Sent:** Wednesday, September 26, 2018 1:47 PM  
**To:** d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Davis, Eva <Davis.Eva@epa.gov>; Nicole Goers <Nicole.Goers@TechLawInc.com>; Brasaemle, Karla <KBrasaemle@TechLawInc.com>; steve <steve@uxopro.com>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Bo <bo@praxis-enviro.com>; d p <DPope@css-dynamac.com>  
**Cc:** JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW <catherine.jerrard@us.af.mil>; Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; Pearson, Stuart C. <stuart.pearson@woodplc.com>; Paula Panzino <Panzino.Paula@azdeq.gov>; William.Hughes@SpecProSvc.com  
**Subject:** 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ

For the groups' use. Site ST012 Enhanced Bioremediation Remedy. Please forward if I have inadvertently skipped any ST012 group members. Paula Panzino, ADEQ Chief Science Officer, is attempting to capture appropriate email addresses.

Thank you.

Reply to: [Panzino.Paula@azdeq.gov](mailto:Panzino.Paula@azdeq.gov)

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**From:** Paula Panzino  
**Sent:** Wednesday, September 26, 2018 10:10 AM  
**To:** Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>  
**Cc:** Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steven Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>  
**Subject:** 2018-9-26- wafb - FYI - Benzene Degradation Literature

Hi Wayne,

Please forward these papers to the whole team – EPA and AFCEC and copy me. I would do it myself, but I don't have all the e-mail addresses.

The knowledge that the presence of sulfate and nitrate can result in the degradation of BTEX has been around for a long time.

Thank you,

Paula C. Panzino  
Chief Science Officer  
Arizona Department of Environmental Quality  
1110 W Washington Street  
Phoenix, AZ 85007  
Office: (602) 771-6145

